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SPECIAL ARTICLES

VITAMINS—FROM THE DAYS OF COLUMBUS TO THIS PRESENT
FRANKLIN ROYER, M.D., Sc.D., AND JEAN LINDSAY, A.B.

PSYCHOANALYSIS, A CONTRIBUTION TO THE NEW PSYCHOLOGY
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The Public Health Journal

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Vitamins

From the Days of Columbus to This Present

By Franklin Royer, M.D., Sc.D.
Executive Officer Massachusetts - Halifax Health Commission, Director of Public Health Nursing, Dalhousie University.

and

Jean Lindsay, A.B.,
Secretary, Massachusetts-Halifax Health Commission.

EVER since sailors and explorers journeyed far and wide over uncharted seas, and into strange, distant lands, there kept pace with them, that grim and deadly Nemesis Scurvy, only waiting the approach of hunger and exhaustion to turn and rend them.

The discovery of a simple cure for Scurvy was probably quite accidental and the recovery of the sufferer would seem little short of miraculous. In a general way its cause was known and a remedy was available as early as 1720 when Kramer, Chief Surgeon with the Austrian Army in Hungary summarized his experience in the following quaint paragraph:

"If you can get green vegetables, if you can prepare a sufficient quantity of fresh, anti-sorbutic juices, if you have oranges, lemons or citrons; or the pulp and juice preserved with whey in cask, so that you can make a lemonade, or rather give to the quantity of 3 or 4 oz. of their juice in whey, you will without other assistance cure this dreadful evil."

Up to the latter part of the 18th century, thousands of cases of Scurvy were reported annually. By 1804, the simple remedy noted by Kramer had become so well known that the British navy prescribed a regular issue of lemon juice for its sailors, and within a very few years, scurvy became a comparatively rare disease.

WHY?

One of the unfortunate by-products of modern civilization has been the growth and spread of the disease Beriberi in the East. Takaki, Surgeon-General of the Japanese Navy was finally authorized to investigate the cause of its spread among the Japanese sailors. He reduced the amount of polished rice, increased the allowance of meat, fish, vegetables and added milk and flour. The change of diet produced marvellous results, which Takaki attributed to the addition of more nitrogenous foods.

In 1897 Eijkman, medical officer to a prison in Java where polished rice was the principal food, and where many Beriberi cases occurred, noted that the fowls which fed upon the rice refuse suffered from a similar disease. When he fed the fowls the rice husks they recovered. He found further, that when they were fed the entire rice kernel, the disease did not develop. Later U. S. Army officers working in the Philippines cured the Filipinos suffering from Beriberi with rice husks. These experiments established that the polished rice was a direct cause of the disease, and therefore that we must blame modern milling methods for its spread.

WHY?

Let us come down to Nineteen Hundred and Now, as Vance Cooke says. Once there was a Modern Parent who was trying to bring up his child in the way she should go. Somebody had told him that Mary should have a carefully balanced diet, so many calories of proteins, so many calories of carbohydrates and so many calories of fats and so on. Somebody else had told him that germs were dangerous things. So Mary's food was carefully balanced and sterilized. But Mary didn't thrive and was always ailing. Then some ignorant woman—probably the wife of a Professor—told the Modern Parent's wife to give Mary every day a little Raw Cabbage —of all things! And the Modern Parent's Wife did; but she didn't tell the M. P. And little Mary got better.

WHY?

What was in the cabbage that wasn't in her former diet? What was in the Filipinos' unpolished rice? Why did the lemon juice cure the sailors?

Little though we knew it, one answer had been given before we really got puzzled about it. In 1881, Lunin wrote—"They (mice) are unable to live on proteins, fats, carbohydrates, salts and water. It follows that other substances indispensable for nutrition must be present in milk."

In 1911, Casimir Funk, a Polish chemist, precipitated rice polishings, until there was left a very small quantity of a crystalline substance which speedily cured pigeons afflicted with experimental Beriberi. After further experiments along similar lines. Funk leaped to the conclusion that Beriberi, Scurvy, Rickets, etc., were due to the lack of a specific chemical substance, to which he gave the name "Vitamin."

For ten years, food chemists in their laboratories have been seeking these "other substances." From all over the world the answers to our questions have come syllable by syllable.

The basis of all recent experimental work consists in giving certain animals, notably the guinea-pig, the rat, the pigeon, and the puppy, a diet, from which by careful experiment, it has been proven that one or more of the vitamins is absent, and noting the loss of weight, tooth-changes, and the first evidences of dry-eye, scurvy or other disease. Also, at the same time, for the purpose of comparison, similar animals (controls) are fed upon vitamin-rich foods of the same variety. One experiment takes from sixty to ninety days, and it must be repeated many times by several trained investigators in order to confirm the results. In this way, all our foods are being tested to show their comparative value as vitamin-containers.

There has been a difference in the terminology employed to designate these "other substances." Many objected to Funk's term Vitamin (originally spelled Vitamine) as inaccurate. McCollum's Fat Soluble A and Water Soluble B are cumbersome. Other research workers have employed such terms as Food Accessory Factor and Growth Determinant; but neither of these are wholly free from criticism. The common usage seems to have become Vitamin A, Vitamin B, Vitamin C, and—Vitamin D.

Most authorities now agree that there are four of these Vitamins. They possess definite chemical unity, but strange as it may seem, they have never been and may never be isolated.* They are present in very small quantities, but exercise an influence disproportionate to their amount. Absence of them from our diet disturbs the functions of the body, and will in the end bring about a diseased condition.

Much still remains to be discovered. Vitamins A and B are being studied to find out if each is, not one alone, but two, with distinctly separate functions. Other scientists are tracing the earlier effects of a Vitamin-deficient diet. Their findings to date

*Kagawa (Progrès Medical, Dec. 23, '22) reports isolation of Vitamin A from Cod Liver Oil by Katsuya Takahashi.

seem likely to exert a great influence in both medical and dental therapeutics. They are also applying the theory of vitamin deficiency to other diseases in an effort to explain them, and if possible prevent their occurrence. Truly it is a wide-extending field of research, filled with possibilities for good to the world of men, women and children.

THE ALGEBRAIC X OF OUR DIET.

Scientists all over the world have found it difficult to frame a definition for the newest, and most elusive of food substances the Vitamin. Try as they will, in their laboratories, they have never been able to isolate it. How can we define what we cannot see with our eyes, or at least examine under the microscope? We can only list their positive and negative attributes, as they have been discovered after countless experiments. The mechanically inclined of us—and that includes most men and some women—will find it worth their while to compare this body of ours to a gasoline engine:

"The organic nutrients, fats, carbohydrates and proteins correspond to the fuel; the proteins and some of the mineral matter to materials of which the motor is made; and the vitamins to the ignition spark whose own energy is insignificant, but without which the engine cannot run however fine the material of which it is built or however abundant and appropriate the supplies of fuel and of lubricant." (Sherman: Vitamins, p. 206.)

Four vitamins have been definitely proved to be present in our foods. They are known chiefly in the pathological conditions resultant from their absence—Fat Soluble A, a continued lack of which causes Xerophthalmia; Water Soluble B, which is rice polishings for instance prevents Beriberi; Water Soluble C, known as the anti-scorbutic vitamin. It has recently been demonstrated (McCollum, August, 1922) that Cod Liver Oil, always considered a valuable source of Vitamin A, contains the fourth vitamin which cures Rickets in contrast to Butter Fat which is also rich in Vitamin A, and which does not possess this curative power. Vitamin D must be fairly stable as it is not lost in the process of manufacturing Cod Liver Oil.

The evidence being heaped up is conclusive that a vitamin deficient diet produces disturbances of certain cell functions which will eventually result in disease. Through our little dumb friends, the guinea-pig, the rat and the puppy, it has been absolutely proved that a diet deficient in Vitamin A or C, seriously affects the struc-

ture and texture of the teeth and predisposes one's teeth to decay. It is a matter of fact that the children of European immigrants, who have never used a tooth-brush—please note that—usually have strong, white teeth. It is also a fact to be regretted, that children in our public schools, even those who have been trained to use the tooth-brush, possess many decayed teeth. They tell us that the reason for this is that the little immigrant children have always eaten what we call crude foods and no sweets, and that the children of this country eat refined foods and many sweets. Therefore—but we will leave it to the reader to supply the conclusion.

Boys and Girls! Please come this way!
Vitamins are here to stay!
Though they have a strange new name
They are old friends just the same.
You will find them full of fun.
Can you name them, every one?

How much vitamin-containing food must be eaten in order to secure our necessary quota of vitamins? Our daily meals, if containing vitamin rich foods should supply along with the other essentials, the requisite amount. Many of the authorities have stated in their writings that only one of the vitamins is likely to be absent from the average simple diet, and that is Vitamin A. According

to the results found by scientific experiment, milk is the most important food containing it. Most adults consume a very small quantity of milk in tea and an additional small amount in the form of butter. Spinach and eggs are the only other two foods that have been thoroughly examined which provide us a superlative amount of Vitamin A. Whole wheat is an excellent source of this vitamin, but not so good as the three mentioned. The only meats containing an appreciable amount are Kidney and Liver, which are not often enough on our tables. What are known as the Leafy Vegetables—chard, dandelion greens, lettuce, for example, all furnish good amounts of Vitamin A. The other vegetables are rich in Vitamin B, but there are some of those which are equally rich in Vitamin A—Tomato, that "king" of vegetables and fruits, carrots, string beans, peas and sweet potatoes. Vegetables are a source of food supply that are generally neglected, but we have only to add them in more abundance to our menu to fortify ourselves against the dangers of vitamin deficiency. And, let us repeat, don't forget milk—especially for children and young people—Milk the one perfect food, designed for that purpose alone. A quart a day, to use the Old Country phrase—an Imperial Quart—is not too much for every child.

We are not apt to suffer from vitamin starvation during the summer months. Then it is that we all indulge in fresh fruits and vegetables from our garden or the green market; but during the winter months, certain fruits and vegetables are often unobtainable. Fortunately the orange is always with us, and many of the winter-kept vegetables, cabbage especially, are valuable sources of the vitamins. Tomatoes, even canned, are rich in Vitamins A, B and C. Investigators are now testing the efficacy of the various vegetables and fruits after canning. The results so far are most encouraging. A high temperature, when not long continued, and especially if the process excludes air, does not seriously affect Vitamins A and B. Still better results are obtained by drying. One cannot begin to estimate the immense amount of good that will result if it is scientifically established that vegetables and fruits may be dried and packed and retain excellent nutrition value months after.

But how can the body obtain substances essential for its nourishment, if we peel our vegetables, and, as if that were not enough, give them a long boiling in a full kettle of water which is drained off and poured down the sink. As a prominent American dentist said in the course of an address—"If the drainpipe had a digestive

apparatus, it would be perfectly nourished, for it gets the real material while the family gets the refuse." Put as little water as possible on vegetables. The moisture remaining on spinach and chard after washing is almost sufficient for them. Save for soups any water that has to be drained off. Even taking every precaution, we do lose some of the vitamin content. Vitamin B is fairly stable, and in Whole Wheat Bread for instance, we get its full quota.

Vitamin C is volatile, and is best obtainable in uncooked foods, such as fruits and vegetables. It is kept in tomatoes and citrous fruits after cooking because of their acid content. Pasteurized milk loses most of Vitamin C, but preserves practically all of A and B.

For the safety of the community, milk must be pasteurized. The addition of orange or tomato juice to the diet of infants and small children will supply what has been lost by pasteurization.

Therefore—Use more of the natural foods: cook for as short a time as possible: and don't let the drain pipe be better nourished than your family.

An Authoritative Tabulation.

Professor H. C. Sherman has just written a book on Vitamins, which is the most exhaustive treatment of the subject that has yet been published. To the man on the street and the woman in the

home, the most interesting and practicable chapter is the last—"Vitamins in the Problem of Food Supply"—and from it we have taken in great part the table of foods which is appended:—

	"A"	"B"	"C"
GRAIN PRODUCTS			
Barley, Whole	+	++	–
Bread, White, (Water)	?	+	–
Bread, White, (Milk)	+	+	?
" Whole Wheat, (Water)	+	++	?
" " " (Milk)	++	++	?
Corn, Yellow, Whole	+	++	–
Flour, White	–	+	–
Oats	+	++	–
Rice, polished	–	–	–
" whole grain	+	++	–
Wheat, middlings	–	+++	–
" bran	+	++?	–
" whole	+	++	–
SUGARS AND STARCHES			
Honey	–	+	–
Starch	–	–	–
Sugar	–	–	–
FATS AND OILS			
Beef fat	+	–	–
Butter	+++	–	–
Cod Liver Oil	+++	–	–
Lard	+?	–	–
Margarine, Nut	–	–	–
" Oleo	+	–	–
Mutton fat	+	–	–
Olive Oil	–	–	–
MEATS AND FISH			
Brains	+	++	+?
Fish, Lean	–	+	⊙
" Fat	+	+	⊙
Heart	+	+	+?
Kidney	++	++	+?
Liver	++	++	+
Meat muscle	+?	+?	+?
" extract	–	–?	–
" canned	–	slight	–
Roe, fish	+	++	+?
Sweetbreads	+	+	⊙
NUTS			
Almonds	+	+	⊙
Brazil nuts	–?	++	⊙
Cocoanuts	⊙	+	⊙
Filberts	⊙	++	⊙
Peanuts	+	++	⊙
Pecans	⊙	+	⊙
MILK			
Milk	+++	++	+var.
Milk, evaporated	+++	++	–var.
Milk, dried, whole	+++	++	+var.
Milk, skimmed	+	++	+var.
Butter	+++	–	–
Buttermilk	+	++	+var.
Cream	+++	++	+var.
Cheese	++	⊙	⊙
Curds	+	⊙	⊙

	"A"	"B"	"C"
FRUITS			
Apples	+	+	+
Bananas	+?	+?	+?
Grape juice	⊙	+	+
Grapefruit	⊙	++	++
Lemon juice	⊙	++	+++
Limes	⊙	+	+
Orange juice	+	++	++
Orange peel	+	+	++
Pears	⊙–	+	⊙
Prunes	⊙	+	–
Raspberries	⊙	⊙	+++
" canned	⊙	⊙	+++
Tomatoes, raw	++	+++	+++
" canned	++	+++	+++
VEGETABLES			
Alfalfa	+++	+++	⊙
Beans, Kidney	⊙	+++	⊙
" Navy	⊙	+++	–
" String, fresh	++	++	++
Beets	⊙	+	⊙
Cabbage, fresh, raw	+	+++	+++
" cooked	+	++	++
Carrots, fresh, raw	++	++	++
" cooked	++	+	+
Cauliflower	+	++	+
Celery	⊙	+	⊙
Chard	++	+	⊙
Cucumber	⊙–	+	⊙
Dandelion greens	++	++	+
Endive	+	⊙	+
Lettuce	++	++	+++
Onions, raw	⊙	++	+++
" cooked	⊙	++	++?
Parsnips	–?	++	⊙
Peas	++	++	+?
Potatoes, boiled	⊙	++	+
baked, or cooked	⊙	++	+
Potatoes, sweet	++	+	⊙
Radish	⊙	+	⊙
Rhubarb	⊙	⊙–	+
Turnip, swedish	–?	++	+++
" white	–?	++	⊙
Sauerkraut	⊙	⊙–	–?
Spinach, fresh	+++	+++	⊙
" dried	+++	++	⊙
Squash, Hubbard	++	⊙	⊙
EGGS			
Eggs	++	+	+?
Egg white	⊙	⊙	⊙
" yolk	+++	+	⊙
" dried	++?	+?	–?
YEAST			
Yeast	–	+++	–
Yeast cakes	–	++?	–
" extract	–	+++	–
Beer	–	–	–

\+ contains the vitamin
++ good source of the vitamin
+++ excellent sourse of the vitamin

– no appreciable amount of the vitamin
? doubt as to presence or relative amount
⊙ evidence is lacking or appears insufficient

It will be noted that Vitamin D is not listed. It has been so recently separated that investigators have not had time to prove its presence or absence in many foods.

Some interesting and surprising conclusions can be drawn from the above table, the most important being the overtopping superiority of milk, fruit and green vegetables, and the inferiority of meat as to Vitamin content. The popularity of meat is due as much to its taste as to its protein and fat content. A diet consisting largely of bread-stuffs and cereal is more effectively supplemented by vegetables than by meat. The purchase of more fruit and vegetables is good economy as well as good hygiene. Milk is the one article of diet whose sole function in nature is to serve as food and the one food for which there is no satisfactory substitute. The one responsible for the dietary should first of all provide an adequate supply of milk and vegetables and fruit, after which breadstuffs, meat, fats, and sweets may be added according to taste, energy requirements and individual purchasing power.

From Drug Store or Green Market—Which?

"What shall we eat? and What shall we drink?" are still all-important questions to the world at large, but we are often quite bewildered by the contradictory answers. For this reason, it is reassuring to hear the voices of the scientists in unison on the existence and the importance of Vitamins in our daily food. Innumerable articles have been published in our magazines, ranging from the strictly technical to the simply popular; and he must be a careless reader indeed who has not found an article at some time in his favorite magazine.

The twentieth century public is intensely interested in its well-being, and is always trying new remedies, practising physical exercises, adopting all kinds of fads, some good, some harmless and some dangerous—and, as was inevitable, it has now turned its attention to Vitamins.

No one is more alive to this weakness of the public than the patent medicine manufacturers. The public are interested in vitamins; the public think vitamins will benefit their health. The public will therefore, so they reason, seek vitamins in a drug store; very well, in a drug store they shall find them. When the seeking public goes to the drug store, they find that the patent medicine manufacturers have been there before them and can supply their demand.

"The claims of these preparations are extravagant and misleading," to quote McCollum. They profess to be remedies for nearly every ill of the flesh. It is probable that the makers of these pre-

parations do not fully realize the nature of the substances which they claim to sell. It is impossible to separate vitamins and compound them into a preparation since vitamins have never been isolated. Also, their therapeutic effects are limited. Their main functions are to promote growth and vitality and place the body in a condition of resistance to disease. Undernourishment may be caused by a diet of vitamin-deficient foods and is overcome by correcting the diet. Rickets, Beriberi, Scurvy, Xerophthalmia are "deficiency diseases" which are gradually being recognized and treated as such.

All four vitamins are equally essential to our well being. Large chemical concerns claim to manufacture patent preparations containing them all. An examination of some half-dozen of these preparations by E. V. McCollum, a leading chemist in John Hopkins University, discloses the fact that Vitamin B, the most stable of the three, is the only one of which he can find a trace. In his published article on the subject, we find quotations like the following—"does not contain more than traces"—"nearly free from"—"the preparation is worthless as a source."

McCollum employed these patent vitamins in the diet of certain of his laboratory animals selected for this special test. In every case they sickened and would have died if the patent vitamin had been continued.

It is only fair to add that there is one commercial preparation that does contain what it claims. Yeast cakes are a plentiful source of Vitamin B, but of Vitamin B only, and they have been overpraised. Why should we eat yeast cakes, for which we must cultivate a taste, when we can eat fruit and vegetables for which we have a taste already and which contain all three vitamins?

Far better from every standpoint to buy vitamins at the Green Market than the Drug Store!

Psychoanalysis, a Contribution to the New Psychology

By J. W. Bridges,
Professor of Psychology, University of Toronto.

PSYCHOANALYSIS is sometimes spoken of as the New Psychology. The latter term has, however, a broader meaning. A quarter of a century ago treatises were being written on the New Psychology. These dealt chiefly with methods and results of laboratory experiments. On the other hand the term New Psychology might be applied to a movement in psychology even more recent than psychoanalysis, namely, Behaviourism. According to this school psychology deals only with behaviour—with various kinds of responses to stimulations, and not at all with mind or consciousness.

The term New Psychology should properly be used to designate the modern views and methods of psychology as distinguished from the ancient and mediaeval. The old psychology was a science of the nature and destiny of the soul. It began with unverifiable assumptions regarding a soul or mind and by a process of deductive reasoning arrived at equally unverifiable conclusions. The system thus built up was pure speculation, and psychology was at that time quite rightly regarded as a branch of philosophy. This view of the science, although given up by present psychologists, is still widely prevalent among the laity, and results in the equally prevalent view that the subject is mysterious and impractical.

The New Psychology is over half a century old. The first laboratory for the study of psychology was founded at Leipzig in 1870. Henceforth psychology like the other natural sciences was to begin with observed facts, and from these its conclusions were to be arrived at inductively. This empirical method in psychology separated it from philosophy as an independent science and led directly to its practical application. This is the final goal and ultimate justification of all science. A science that can contribute nothing in the service of mankind has in the writer's opinion no right to exist. Applied psychology is of course, still in its infancy, but enough has already been done to justify its existence.

Psychoanalysis is merely one important contribution to the new psychology. It has in common with the whole modern standpoint an empirical starting point and a practical aim. The first contribution to this important phase of psychology was made by Sigmund Freud of Vienna in 1895. Freud had studied under Charcot, the great French neurologist, and had imbibed the French conception of psychology as the study of human nature especially as it manifests itself in behaviour; and his psychological views therefore fall into the same general category as those of Janet, Ribot and Wm. James. Freud arrived at his views as a result of his study of neurotic patients. He found that if the patient took his symptoms or his dreams as starting points, he could, through the process of free association, bring into consciousness more and more forgotten experiences from early childhood. Freud found that this course led inevitably to the revelation of childhood sexual material, and resulted finally in the removal of the patient's symptoms. This method he called psychoanalysis. Psychoanalysis is thus primarily empirical and practical. It is a form of psychotherapy; but it leads inductively to a psychological theory.

In this paper the writer will first sum up as briefly as possible, the contributions of Freud, Jung, and Adler; and then he will present his own views regarding psychoanalysis and what it has contributed to psychology. Freud divides the mind into three parts: the *conscious,* the *fore–conscious* and *unconscious.* The conscious is that portion of the mind of which we are immediately aware. The fore-conscious is outside immediate awareness but can be very readily brought into consciousness. The unconscious consists of those experiences and desires which cannot be brought into consciousness by any ordinary means. Psychoanalysis is the method by which the unconscious is made conscious, by which forgotten childhood experiences are brought again to memory.

The unconscious originates out of *mental conflict.* According to Freud this is primarily a conflict between the perverse sexual wishes of childhood and the conventional morality which the individual is obliged to acquire. As a result of this conflict the original sexual wishes are *repressed* and a resistance is built up to prevent them from re-entering consciousness. This defence is frequently greatly over-developed, so that in consciousness there appears the opposite of the repressed trend. It is the task of psychoanalysis to break down this resistance and reveal the original wishes.

The nature of the unconscious is according to Freud *dynamic.* It consists of repressed childhood wishes which are ever striving to express themselves. It is also, as intimated above, *sexual.* The energy that strives for expression is sexual energy. Freud calls it *libido.* The sexuality of the unconscious is, however, a perverse sexuality. It consists of sexual cravings of childhood which cannot be lived out in adult life in a civilized or conventionalized society. Among the most important of these are: autosexual cravings or self love, homosexual craving or love of other persons of the same sex, incestuous craving or love of persons of the opposite sex within the same family, sadistic and masochistic craving or love of sexual cruelty and pain, and exhibitionistic craving or love of sexual display.

These repressed impulses manifest themselves in various indirect ways, for they cannot be completely annihilated. They express themselves symbolically in dreams. Dreams are thus wishes that cannot be fulfilled in real life. They reveal themselves in mannerisms and slips of the tongue. They are converted or transferred into neurotic symptoms. It is the aim of psychoanalysis to remove the symptoms by laying bare the underlying cause and directing the repressed libido into other harmless channels. This re-direction of the libido into higher, that is socially more desirably channels, is called *sublimation.*

Carl Jung of Zurich studied psychoanalysis under Freud, but later departed from the master in the following way: Freud's conception of the libido or sexual energy, is broadened to mean the urge, push, or energy of life which is manifested in other activities as well as the sexual. This libido has two opposing trends: progression, the striving forward towards differentiation and the overcoming of intervening obstacles; and regression, a pull backwards toward the uniformity and irresponsibility of infantile and prenatal life. This regressive tendency is substituted for the incestuous love which Freud believed dominated the neurotic patient and enchained him to the past. *Mental conflict is fundamentally a conflict between these progressive and regressive trends.* A neurotic patient is one who instead of overcoming the obstacles in his path, has regressed to an infantile form of expression of the libido.

Alfred Adler of Vienna also studied under Freud, but later developed his own system of individual psychology. Adler puts the main emphasis on the ego instincts instead of the sex instinct. The dominating impulse in life is not the sex instinct, but the wish

for power and the wish for security. The desire for superiority is a compensation for a feeling of inferiority that is based upon an actual or supposed defect. Neurotic symptoms represent a protest against a constitutional inferiority or on inferior position in life. Thus, hysteria in women is frequently a protest against the supposed inferior position of women in general. Degeneracy, genius, and neurosis are, according to Adler, related in the following way: the degenerate succumbs to his inferiority—the compensation is unsuccessful. The genius completely compensate for his inferiority by remoulding himself or reality to suit his purpose. The neurotic compensates by a fantastic creation. He negates reality and seeks refuge in fantasy. He compensates in day dreams or in behaviour that does not adjust him properly to his environment. He attains power through sickness.

As far as the technique of psychoanalysis is concerned, Jung and Adler are in practical agreement with Freud; but, while Freud explores the unconscious in order to reveal repressed sexual desires, Jung seeks to recall earlier forms of libido activity and to detach the subject from the past, and Adler attempts to show his patient that his symptom is really an indirect and unsuccessful expression of the wish for power. Some English and American psychoanalysts have developed a method and a point of view that embrace the best results of these three masters.

In the writer's opinion the psychoanalyists have contributed a great deal to psychology; and he will endeavour to state as concisely as possible this contribution as he sees it. Three points must be emphasized in the beginning. In the first place psychoanalysis is by no means co-extensive with psychology. It is a part of psychology, and many psychologists still regard it as controversial or of only minor importance. Secondly, psychoanalysis has been given a philosophical and speculative turn by Jung and others. Jung's reasoning is interesting and almost seductive, but it lacks the empirical foundation that Freud so greatly emphasized. Thirdly, the psychoanalysts often express themselves in an antiquated terminology that savours of mysticism and leads to confusion. It is difficult to separate fact from theory or to change an established terminology, and no claim is made that the following exposition has completely attained either of these aims.

The fundamental contentions of psychoanalysis may, in the writer's opinion, be summed up in a single paragraph. Man is a product of inheritance and environment, of nature and nurture. The former often comes into conflict with the latter. The so-called

mental conflict is chiefly a conflict between original nature and cultural morality, but diverse original impulses may also come into conflict with one another. This conflict may persist; or the outcome may be (a) domination of original nature, or (b) domination of habit, that is to say repression or original nature, with various indirect manifestations, or (c) modification of original nature to suit the social demands. Each of these points will be considered in greater detail.

Man's original nature includes such things as his sensory and motor capacities, his intelligence and his instinctive equipment. Psychoanalysis is concerned only with certain instinctive elements of his original nature. In the first place man by original nature is perversely sexual. In other words he has in his instinctive equipment sexual cravings that are tabooed by the social order in which he lives. The writer accepts the Freudian analysis of these perverse sexual elements into autosexual craving, homo-sexual craving, incestuous craving, sadistic and masochistic craving, exhibitionistic cravings and so forth.

Secondly, by original nature man is selfish. This selfishness takes two forms: self aggrandisement and safety seeking, or the wish for power and the wish for security. Man desires to dominate as much of the world as possible, but he also desires the greatest possible comfort and security. Thirdly, man by original nature is pugnacious, and he expresses his pugnacity by the removal or destruction of the thing that stands in his way. Fourthly, men by original nature is gregarious, he must consort with others of his own class. He fears social disapproval or ostracism and is willing to sacrifice other cravings to attain his social desires.

Man is also a product of his environment. He is born into a world in which he is obliged to acquire certain habits. Some of these habits are picked up casually, others as a result of formal training. Of chief importance for our purposes are his so-called moral habits, his cultural morality. He finds that his sexual life must be rigidly restricted, his egoism must be modified, his pugnacity must be curbed. Moreover, he wishes to subscribe to these social demands because he is a gregarious animal. The herd instinct and the fear of punishment and disapproval supply the motives for the acquisition of his moral habits.

To be continued

Early Public Health in Toronto

The following is a brief summary of the early activities of the Department of Public Health, of Toronto, as outlined by Mr. Robert Wilson, Chief of the Division of Sanitation, at a banquet tendered him on the occasion of his retiring from the Division, to become Chief Prosecuting Counsel for the Department, in connection with the Police Court:

The date of the appointment of the original Board of Health in Toronto seems to be lost in antiquity, but I find in the Minutes of Council for the year 1863 that on the 14th day of January the Board of Health presented their final report for the year 1862. This report recites the fact that "the appropriation for the year was $300.00 which would have been sufficient for their purpose, but a deficit of $136.14, carried over from the previous year (1861), had to be met." They "erected a Pound in the western part of the city at a cost of $70.00," and recommended that "another Pound be established in the vicinity of St. Lawrence Market." "The attention and efforts of the Board during the year had been directed chiefly to the nuisances existing in the city, created by the overcrowding of piggeries and cow stables, and again recommend that the Board of Health be discontinued and the duties performed by the police force."

So we see by this report that a Board of Health had been in existence in 1861, and how many years before that I cannot say, but I have been unable to find under what authority it acted or was brought into being, as the Provincial Health Act was not enacted until many years later. In the year 1866 a Statute of Upper Canada was passed giving municipalities authority to "pass by-laws to prevent and abate public nuisances; to have vacant lots cleaned; to prevent or regulate the construction of privy pits, and for providing for the health of the municipality and against the spreading of contagious diseases." As a Board of Health had been operating in 1861 it is quite clear that they were not working under this authority.

Apparently the recommendation to abolish the Board was not agreed to, for I find in Report No. 2 submitted to Council on the 26th April, 1869, a recommendation that "the Board of Health be forthwith abolished, and that the Board of Works be requested to attend to the cleaning of the streets and lanes of the city and

the removal of all dead animals, refuse matter, etc.", and that "Mr. Reed, the present Health Inspector, be transferred to the Board of Works." This recommendation was agreed to on the same day and on the 26th November By-law No. 502, entitled, "A By-law relative to the Public Health of the City of Toronto" was passed. This by-law repealed several former Health By-laws, the earliest of which had been passed in 1858, and it apparently provided for the consolidation of some by-laws which had been passed previous to that date.

This By-law No. 502 contained fifty-five sections, and is a remarkable piece of legislation to those who consider that the City Fathers of that day were ignorant of the laws of sanitation, for many of these sections are practically identical with several of the sections contained in the Provincial Health Act and the Model By-law attached to the Act to-day. Annexed to the By-law was a form for the use of the Inspector on which to make a report of each inspection, and at the foot of which was printed the following declaration: "I hereby certify and declare that I have examined the premises above mentioned, in accordance with By-law No. 502, and that the state thereof is as I have described.

"(Signed), ... Inspector."

Truly our forefathers did their work well.

The next reference to a Board of Health appears to be in the Council minutes of the 5th February, 1872, when Alderman Manning moved "that a by-law to re-appoint a Committee of Council to be called the Board of Health, be introduced;" This motion carried and By-law 542 was enacted at the same meeting; this repealed Section 2 of By-law 502, which conferred the authority of enforcement on the Board of Works, and invested the authority in the Board of Health, the members of which were delegated to act as "Health Officers." So far as I have been able to ascertain this committee was re-appointed yearly until the enactment of legislation in 1882 which brought into being the Provincial Health Act and the Provincial Board of Health.

In accordance with the requirements of the Act of 1882 the City Council took into consideration the appointment of a medical practitioner as Health Officer. Applications were received from many of the prominent physicians of the city and on the 12th March, 1883, Dr. William Canniff was appointed Medical Health Officer at a salary of $1,500 per year. That his duties were many and varied may be guessed from a perusal of By-law 1317, which provided he should:

1. Examine applicants for admission to Hospitals.
2. Consult with and advise the Markets and Health Committee respecting all matters relating to the public health and sanitary condition of the city and visit any person, place or premises for the purpose of examining same, when instructed by the Mayor so to do.
3. Upon being informed that any family is destitute and suffering from disease, at once proceed to visit such family and take such measures for their immediate relief as may seem requisite;
4. Advise the General Inspector of Licenses respecting unwholesome or adulterated articles of food.
5. Attend at least once a month at a stated place in each ward and perform the duties of Public vaccinator.
6. Discharge the duties of physician and surgeon to any City official or employee injured in the discharge of his duties.
7. Discharge all such other duties pertaining to the public health of the city and the sanitary condition thereof; and generally give due and proper attention to all the usual business appertaining to the Health Department of the city, and
8. Attend at his office in the City Hall from 10 to 12 a.m. and 3 to 4 p.m. daily except Saturday, and on Saturday from 10 to 12 noon.

As the population of the city at this time (1883) was over 99,000, his position does not seem to have been a sinecure, and apparently he had no assistance until the month of August, when a few policemen were temporarily transferred for sanitary duties; these were engaged for four months in making a survey of the city, and the results which were embodied in a report submitted by Dr. Canniff on the 28th January, 1884, addressed to "Mr. Ald. Carlyle, Chairman Markets & Health Committee."

This report is worthy of a careful study as it gives a fairly clear idea of the conditions existing in the city at that time, and the need of a competent official to deal with the situation. An analysis of the report shows that of some 16.500 premises inspected only 10,207 were drained (and many of these were suspected of being merely a box drain discharging into a privy pit), 4,396 had no drainage and 1,421 had defective drainage; 5,014 cisterns and 4,330 wells furnished the only water supply for probably twice that number of dwellings; 512 had no water supply; 2,994 were somewhat modern, as they were furnished with water closets, while 14,143 privy pits were found.

Permit me to quote from the report:—

"It will be observed that the report shows a large number of premises without drainage and no inconsiderable number with defective drainage. I have reason to believe that these numbers do not fully show the extent to which the want of proper drainage imperils the citizens.

"The importance of having adequate drainage leads me to respectfully urge upon your Committee the necessity of taking early steps to secure a full and free outlet from every district and yard in the city. . . . . Until sewers are constructed on all streets or lanes, so that private drains may be conveniently connected to them, there will remain portions of the city without this requisite for the sanitary welfare of the people.

"The subject of water supply for domestic purposes is also of great importance from a sanitary point of view, and while the number of services for supply of city water is rapidly increasing, there are a good many who have only well or cistern water for family use. Five hundred cases were found in which neither city, well nor cistern water is available, but there are a much larger number where the inmates of dwellings have only cistern water which is unfit for consumption. The reports also show a large number of wells situated in more or less proximity to privies, where neither the wells or the privies are enclosed with water-tight walls."

"The returns show that there are now in use in the city a very large number of privies. The character of these is by no means uniform, and it was found impossible to classify them, except as to whether full or foul. While some of them are constructed in a more satisfactory manner, many of them are little better than pits in the earth. Too many are shallow and often overflowing into the yard or street."

"In some cases families were found with no such necessary convenience as a privy, and the street became the receptacle of the excrement with the slops and the garbage. Without considering the general question as to the best mode of disposal of excreta and sewage generally, it may be remarked that the use of privy vaults is now condemned by all sanitarians for use in a thickly populated district. Although it is far from a pleasant contemplation that the sewage of a population of nearly 100,000 should be poured into the bay to gradually convert it into a cesspool, still of the evils it is preferable to have water closets, by which the excrement may be carried at once away, instead of collected on premises to become

a source of imminent danger to public health—it is to be hoped that the scheme for carrying the sewage of the city away by intercepting trunks sewers will very shortly become an accomplished fact."

In another report attention is called to the filthy and unsightly condition of the water front between Spadina and Berkeley Streets, and those who remember the disgusting conditions at the foot of Yonge and other streets where the sewers discharged into the bay, realize the great improvement that has taken place by the construction of the trunk sewer, which carries all the city's sewage to the plant in the eastern part of the city. In this report it is also stated that garbage and street sweepings are still being dumped in the bay at the foot of Berkeley Street and an appeal is made to at once consider the advisability of adopting some other method of disposing of the city's waste.

What a contrast to the conditions existing to-day in the metropolitan City of Toronto with a population of over 530,000; not a dwelling without a continuous supply of pure city water; practically every dwelling house drained; privy pits all abolished (except in parts of recently annexed suburbs) the trunk sewer an accomplished fact and incinerators erected for the destruction of garbage and the city's waste. But this is not all, the activities of the Department have been increased from time to time, until now they embrace practically every interest and influence that has a bearing on the health and welfare of our citizens and the future generation.

Judged in the light of the knowledge of to-day, our work in the early days may be considered crude, but in the pioneer work done in those days the foundations were laid well and deep on which has been erected that wonderful structure that is acknowledged by eminent authorities to be the most perfectly organized, the best equipped and the most efficient department of health on this continent; and I am glad of the opportunity of paying this tribute to the pioneer work done by the late Dr. William Canniff, the first Health Officer of Toronto.

"Modern Aspects of Physical Education"*

By Miss G. Barber.

FROM the previous paper we have had an opportunity to review the history and methods of body training among Ancient Peoples, the Greeks being the first to establish and maintain a system of Physical Education based on high ideals. In the gulf between Greek and Modern Physical Education the work of the pioneers of Germany and Sweden has had a lasting effect. Developed by patriotic leaders who applied to their work little psychology of child study, these systems were the result of political situations in Europe. As such they served a purpose in awakening a national consciousness to the fact that the youth of the nation should be physically, intellectually, and morally strong. Modern educators claim that these two systems planned for adult youths were an adult-conceived, formal means of developing muscular power, strength and endurance. Unfortunately the general public thinks of Physical Education as dealing with gymnastics alone.

From the educators the complaint comes that the teachers of Physical Education are unable to define their objectives in terms of General Education. These objectives have varied since the school developed to teach written language, and all vital education took place outside of the school. At present we are demanding that, along with the other activities now cared for by the school, the physical activities once a part of home and community life be organized. As a consequence the aims of Education are being revised to include new values inherrent in Physical Education. We believe that Citizenship, Habits, Training for Life, and Latent Possibilities are developed through a wise, wholesome programme of Physical Education.

Most systems set forth the following aims:

1. Corrective—to overcome bad posture.
2. Educational—to train alertness, precision, control, and coordination.
3. Hygienic—to stimulate the activity of various systems.
4. Recreative—to give pleasure and fun.

*Read before the Toronto Society of Physical Education, January, 1923.

The questions asked are:

1. What characteristics must an exercise have to produce the above results?

2. What type of activity is best suited to satisfy the above demands?

According to the best authorities an exercise to have *Corrective* value must be repeated frequently; be sustained and slow rather than abrupt; be sufficiently powerful to (a) restore to normal; (b) maintain at normal; (c) approach the normal; awaken an interest; or be an exact prescription for a definitely diagnosed deformity. It is readily granted that three-fourths of the problem in treating bad posture is to awaken the desire for good posture. For that reason the most effective work may be done individually or with a small number of persons. For the correction of specific defects personal attention becomes a necessity; it is best to classify the pupils according to their needs and plan their work (corrective) accordingly. The average teacher of physical education no longer expects to establish habits of good posture through his formal gymnastic lesson alone, if he meets his pupils only once a week. While it is not difficult to maintain the proper carriage throughout a gymnastic lesson, the problem is to awaken an interest which will make the pupil practice good posture outside of class. Tests similar to the Bancroft Posture Test or the more recent posture drills, contests and campaigns are a means of stimulating interest and checking up posture outside of the classroom.

The *Educational* Value of an activity depends on the definition of Education—whether it is training for life, efficient citizenship, or an opportunity for the child to unfold and develop under more favorable circumstances or conditions. An exercise to have an Educational value must then—

1. Have an Aim.
2. Be interesting and have a meaning.
3. Be expressive of an idea, thought or feeling.
4. Function in the life of the individual
   (a) As a practical motor procedure making him more efficient.
   (b) As an acquisition, making him happy or capable of giving pleasure to others.
   (c) As training in social or moral qualities of good citizenship.

The activities best suited to the above characteristics are:

1. Games, Sports, and Athletics.

2. Dancing—folk, characteristic, and national.
3. Exercises on the apparatus.
4. Formal Gymnastics.

Physical Education aims to make the *play life* of the child efficient, and through the above activities help development along mental, moral, and organic physical lines which are necessary for adult adjustment. We find the grade teacher and the physical director studying the physical and social characteristics of the children and then selecting for teaching those activities that will secure the worth-while ends, formal gymnastics having no place before the end of the third grade. The *spontaneous play* of children, involving big muscle activity, determined by instinct tendencies, will meet all of these tests.

Athletics, sports and dancing may be of distinct value in character training, in developing ideals, and in forming correct social relationships. "In these activities *Moral* development is inherrent because of the instinct tendencies exercised and the social relationships involved."—Clark Hetherington. Whether the development tends to good or bad depends upon the leadership.

In order that these values may be more fully or universally applied we notice certain tendencies serving to tie up motor power function in a protective and recreational manner, namely:—

1. Games and athletics available for all members of a high school or college instead of for 50 out of 500 or 200 out of 2,000.
2. The granting of an A.B. or B.S. degree only after the student has passed certain swimming requirements. (Of 73,000 accidental deaths in the United States last year 7,000 of these were drowning accidents.)
3. The encouragement of Intra-mural instead of Extra-mural sports.
4. Women's athletics and games governed by rules for women.
5. Standardization of various Physical Efficiency tests for Boy Scouts, Girl Guides, Y.W.C.A., Y.M.C.A., H.S. Athletic Leagues. (Tests that encourage all-round development.)
6. More extensive use of corridors, play space, school gymnasiums, etc., outside of school hours.
7. Recent legislation in favour of Physical Education instead of Military Training for H.S. boys.

It is conceivable that training from plays, games, and sports might be adequate under ideal conditions. However, since our school life represents a large proportion of time spent in sedentary work, the definite localized development accomplished by formal

gymnastic work is very effective. In spite of the popular and in some cases just criticism of formal gymnastics, it is possible to bring to this field a spirit of enthusiasm for group action and competition. There is a satisfaction from vigorous muscular action if there is the knowledge that it will result in immediate and permanent benefit.

The *Hygienic* aim means production of Health; to qualify in this respect an exercise must produce wholesome activity of the circulatory, respiratory, muscular, excretory, and nervous systems. Exercises to satisfy the above aims are:—

1. Games, sports and athletics.
2. Dancing.
3. Gymnastics—drill or technique with a definite end in view.

If the above results are gained by pleasurable, self-initiated activities the reaction through the nervous system is much more beneficial. No exercise is wholesome unless it is suited to the individual needs and capabilities. This might lead us to a discussion of the adaptation of exercise to suit age-sex-and previous experience. It is very easy to be carried away by the group idea and forget the individual. Those of us who are actually engaged with teaching in this field look forward to the time when the opportunities for developing a programme better suited to the special needs of the individual will be possible. The word Hygienic suggests *Health Education Programmes* which are being carried out for the teaching of Health Habits. Health *Control* belong to the administrative department of the school, and the medical examiners.

To satisfy the *Recreative* aim an activity must contain the following characteristics:—

1. Interest.
2. Adaptability (gentle or vigorous as the needs of the hour demand).
3. Objectivity (the individual should forget self).

Activities such as the following should be completely satisfying:

1. Games.
2. Athletic Sports.
3. Apparatus for men and some girls.
4. Camp activities.
5. Mass Athletics.

The formal systems of Physical Education always planned for a brief recreation period of games or dances at the end of the gymnastic lesson. The recreational value of gymnastics depends mainly upon the personality, zeal and enthusiasm of the teacher; consider-

ing the large number of enthusiasts who attend the optional classes in Y.M.C.A., Y.W.C.A., and also municipal gymnasia, the directors of these classes may feel that the work outlined there is considered recreation. Having failed utterly in giving the individual the correct play laboratory from birth to maturity, we should aim to bring all the recreation possible into our programmes.

Interest in recreational activities closely allied with Physical Education is evidenced by:—

1. Demand and growth of Playgrounds.
2. Broadening of programme of Normal Instruction in Schools of Physical Education to meet these needs.
3. Value placed upon gymnastics, games and dances by large industrial organizations.
4. Camp movements.
5. Work of Dr. Gulick, Joseph Lee, Henry Curtis and others in the interest of play.

The use of Games and Mass Athletics by the training camps during the war.

Back of *Modern Physical Education* we feel to-day the *Patriotism* of Ling and Jahn; the *Psychology* of Hall, Dewey and others; the *Idealism* of such men as Gulick and the *Service and Devotion* of such men as Sargent, Leonard and Hitchcock.

Typhoid Fever at Cochrane

By Dr. J. W. S. McCullough, Chief Health Officer for Ontario.

THE typhoid fever epidemic at Cochrane, from the information in our possession, would appear to be directly caused by pollution of the Town's water supply. The recognized source of supply for the Town is from springs. Unfortunately the springs do not yield enough water for the Town's requirements, and are quite inadequate to take care of any unusual demand such as a fire. In order to provide for such a contingency the pumps are also connected to Spring Lake, which is an overflow from the springs, but which in addition has a small catchment area of its own. At ordinary times the water level in Spring Lake is several feet higher than the adjacent chain of lakes, which receive the sewerage from the town, but which have a common outlet with that of Spring Lake. Spring Lake and one of these lakes receiving sewerage is connected by a marshy area, through which was cut some years ago a channel to provide an overflow for Spring Lake into the other.

During the dry season last fall, and during last winter the springs proved inadequate to meet the demands of the town, and a considerable amount of water was taken from Spring Lake, with the result that the level of this lake was lowered appreciably, and at the time of the outbreak it was found to be three feet lower than the adjoining lake. At this time it was found that the connection between the two lakes had reversed the direction of flow, and that sewage was actually entering Spring Lake from what had served in former times as an outlet to this lake, the level of Spring Lake apparently having during the season altered by nearly six feet, and instead of being three feet higher than the adjoining lakes was now lower.

During the summer seasons of 1921 and 1922 the Board had several officers in Cochrane on one purpose and another, and the question of the inadequacy of the present spring supply was urged upon the town. As a result of the Board's warning the town gave its first reading to a by-law on August 1st of last year, providing for an improvement of the spring supply, and for sewage disposal. Unfortunately, the town did not pursue the matter, and the season passed without anything further being accomplished. The Board

recited in its report of November 25th, 1921, the need of a reservoir to store a supply of spring water, and the need of chlorination equipment in connection with the pumping works, so that the supply from Spring Lake could at all times be treated. On March 3rd, 1922, the Board forwarded a copy of its report of November 25th, and urged the immediate purchase and installation of a chlorination equipment.

The Provincial Sanitary Engineer was in Cochrane on Sunday, March 11th, 1923, some days before the outbreak was known to exist. At that time there were some reported cases of diarrhoea arising in Cochrane, although it was difficult to determine from the diagnosis whether this was the diarrhoea of typhoid, or some manifestation of the "flu" epidemic, which was also present at that time. In order to make doubly sure of the water supply the Provincial Sanitary Engineer called a meeting of the Council on Sunday afternoon, and told them that in view of the situation it would be imperative for the town immediately to install a chlorination device, and after the meeting the Provincial Sanitary Engineer wired one of the Board's engineers to borrow an equipment from the Wallace & Tiernan Company, and to bring it up on Tuesday, and install it as soon as possible. The Tuesday train did not arrive until late Wednesday evening, and it was not till about Thursday noon that the machine was installed. It has been operating from that date, and it was not until a few days later that the town recognized that they were suffering from an outbreak of typhoid fever.

If the Pumping Engineer had been fully aware of the situation he might have scented some danger when he saw the level of Spring Lake dropping in his pump-well. The blanket of ice and snow over the whole area, however, concealed what was taking place.

In addition to the equipment by our Engineer, another machine was dispatched last week to take care of the treatment of an auxiliary supply, which the town was proposing to obtain from Norman Lake. I understand, however, that the lowering of the level of Norman Lake within the last few days has necessitated the abandonment of this supply.

The Board, through a request to a local engineer in the municipality for information re. direction of flow in outlet connection of Spring Lake, was the first body to point out the manner in which the supply had become contaminated.

Up till midnight of the 3rd of April there have been 600 cases of typhoid fever with 12 deaths.

The Board has sent to Cochrane on the Mayor's request two physicians, 46 general nurses, and 10 of our own public health nurses. The latter are carrying on scout and preventative measures among the people, general nursing in emergencies, looking after young children where mothers are ill, and making themselves generally useful. We had four of these nurses in Cochrane for the first ten days and, upon the Mayor's request, and statement that they were doing most valuable work, six more have been sent forward. Miss Knox, Associate Director of the Division, has been on the ground most of the time, and the District Officer for North Bay has been there almost continuously.

There is a well equipped emergency hospital of 72 beds on the three floors of Columbus Hall, and a convalescent home has been established next door.

The work in Cochrane is in the hands of a very competent local committee, who, I am advised, are doing excellent service. I am in touch with the Mayor by telephone almost every day, and he has been told to advise me of anything he needs. He has expressed his appreciation of the work we have done.

The Red Cross has offered assistance, and this information has been conveyed to the Mayor, who is to advise me if they need anything the Society can afford.

The fact that a polluted water supply has been shown to be the cause of this severe outbreak of typhoid fever, and that the Council had neglected repeated warnings of the Board in this respect, places a very grave responsibility upon the local corporation.

Social Background

Mental Defect as a Factor in Family Instability

MISS GORDON HAMILTON, *of the Charity Organization Society.*

THE question of mind is of natural interest to everyone. Most people know something about mental tests and most people know what feeble-mindedness means. The conception of "mind lack" is not a difficult obscure picture to the average person. But where people are still densely ignorant is with regard to the social significance of feeble-mindedness. If one asks what a feeble-minded person is anyone will say—"Why he's stupid"—or more colloquially—"He hasn't anything in his bean"—but if one asks what does a feeble-minded person do the answer is less ready.

Your Commissioner at Toronto in 1919 in his report on the Care and Control of the Mentally Defective and Feeble-minded in Ontario, said truly—"There remains an almost complete ignorance on the part of the public generally of the fact that feeble-mindedness in all its aspects is the greatest hindrance to progress and efficiency in the educational and industrial world." And back in August, 1908, the British Royal Commission on the Care and Control of the Feeble-minded put its finger unerringly on the important part of a definition when they stated that the feeble-minded were "persons who may be capable of earning a living under favourable circumstances, but are incapable from mental defect existing from birth or from an early age, of (a) competing on equal terms with their normal fellows, (b) of managing themselves or their affairs with ordinary prudence."

The test of feeble-mindedness then is not a mere "I.Q." (intelligence quotient) as the Educational Psychologists have it, but a social capacity test—an evaluation of the individual's ability to live successfully. This inability of the feeble-minded to manage their affairs with ordinary prudence, this inability to compete on equal terms with their fellows—is this a label of some clinic about mental defect, or is it a fact which is proved in schools and city streets and

*An address delivered before the Social Caseworth Conference held recently in Toronto under the auspices of the Neighborhood Workers' Association.

It has not been thought necessary to reproduce the graphs referred to in this article.

ordinary homes and jobs and other life relations? It is easy to make blanket statements; it is easy to create impressions for oneself and others—but is it true that the feeble-minded are more of a social problem than a "normal" family. So-called "normal" families get into plenty of difficulties. "Not all the monsters"—as the French saying goes—"live in Africa."

In New York City last year the family social workers in the Charity Organization Society asked itself these questions—Are we justifiably gloomy about our work with mental defectives? Is it really harder to do constructive work with the feeble-minded than with other groups?—Is it true that the feeble-minded are socially a burden heavier to carry than an average group of widows with dependent children who may need assistance? Do they take more time and effort, and why? Are we suffering from a habit of mind and can anything be done about it?. So the Society set out to study the problem, attacking it as a case-working agency should do—case by case. A research committee was formed in February of last year. This Committee was composed of two doctors, a psychiatric social worker, a district secretary, the district Superintendent of the society, a representative from the court field, and the writer. About 400 case histories were read and a field study made, tracing out a considerable number of social adjustments. The report was placed in the hands of the Committee in February, 1923.

Now, what were some of the findings of this report? It was found true in the first place that the feeble-minded were a specially deteriorated and incompetent lot—viewed not from the laboratory angle, not because of failure to pass some intelligence test, but because they were handicapped in perfectly definite ways in addition to the intellectual handicap. It was true, too, that they required an unusual amount of time and energy but this was due not entirely to the nature of the problem but to the way workers went at it.

The following graph will illustrate something of the nature of the problem. Comparing the pathology and social maladjustment incident to our average case-load and the pathology incident to the feeble-minded group in a given year, we find that the feeble-minded show two or three times as much mental disease (insanity, etc.), cardiac conditions, tuberculosis, venereal disease, immorality, prison sentences, etc.. as the average. We note here, however, one interesting exception. The problem of desertion by and large was less in the feeble-minded group than in our average case-load. This would seem to indicate that the feeble-minded have not enough

initiative to get up and run away—an indication that is probably characteristic. However, such a graph makes us readily understand why the presence of mental defect makes a family situation unusually difficult. Mental defect enters the arena allied with its kinsmen and co-workers, disease and delinquency and crime.

The second graph shows the mental defective as he meets the competition of his fellow men and how he, as we regretably say in the States, "gets away with it."

To find this out a careful field study of 117 defective individuals was made last summer. The cases were entirely unselected, except that a diagnosis of mental defect had been obtained prior to 1916 when the cases had been under the care of the C.O.S. The problem was to see how far this unselected group had succeeded in adjusting itself to the community. Although, as everyone who has done this sort of work knows, it is difficult to get reliable data, the results here were carefully checked and re-checked in a number of ways beside the personal visit, and the social data was made as accurate as possible. The results showed that 48 per cent. over a period of not less than five years and averaging eight years since the diagnosis was made, proved to be dependent or anti-social types—of which thirty-one persons were in institutions, fourteen were definitely promiscuous, etc. The fairly social types who were stabilized in industry or in marriage—though we cannot here consider the eugenic aspects of such marriages—were only 17 per cent.—19 per cent. were either still in school or were shown to be marginal workers in industry, the drifting, shiftless relatively undependable workmen earning low wages.

It is but fair to say that these figures may not be typical of mental defectives more fortunate in environment than those generally known to the family agency, nor is New York City typical of the State and still again, prior to 1916 the worst and more obvious —i.e.—lower grade defectives—were the ones apt to be diagnosed. But still the facts show that this group of unselected defectives is anything but an asset to the community, and the facts have to be reckoned with as the situation, even in New York, doesn't change over night!

Then shall we say—these graphs prove the contention that the feeble-minded are hopeless for a family agency to deal with, that no one can do constructive work against such odds! Well, it is not the part of wisdom or courage to minimize difficulties, but the graphs do not tell the story entirely. Fortunately it is pretty well

established by now that early diagnosis and training can turn many of our mental defectives into useful citizens instead of the jobless, the waster, the prostitute which we have to-day. It is possible with ungraded classes, with manual and trade training, with clinics, with the intensive supervision of unlimited patience, to assure even to our handicapped defectives fairly satisfactory niches in the community. There will always be a class needing permanent segregation and for these, institutions and colonies must be built, but there is such a person as the docile, trained and relatively competent defective—and the crux of the matter lies in training and supervision. The 1916 group were, by and large, an untrained group—and there is no court of justice where the punishment of delinquency fits the crime of our neglect more exactly than in this matter of the feeble-minded. It is society's stupidity, not the stupidity of the feeble-minded that is responsible for this harvest of misery and failure.

Resources were lacking in 1916. Knowledge itself was lacking. Resources, unfortunately, in New York are still lacking for adequate treatment of this problem, but knowledge is spreading and knowledge is half the battle. A community can pay for special institutions and colonies or it can pay for prisons and reformatories;—it can pay for good housing and supervision or it can pay for syphilis and prostitution;—it can pay for ungraded classes and trade training or it can support the families of the feeble-minded who can't keep a pob. The collective choice is the community's. But it is not enough to make a wise collective choice and so plan the budgets.

The agency which finds the problem of the mental defective hopeless and its own outlook gloomy has a legitimate grievance in those communities where resourses of institution and clinic, psychopathic hospital, ungraded classes and so on, are lacking. But let us suppose for a moment a community with ideal resources,—the agency would still be gloomy unless it had taught itself first to differentiate and discriminate one type of defective in one kind of environment from another type of defective in another type of environment, and so use those ideal resources wisely and well. In other words, the agency would have to apply the best sort of case work principles to the sub-normal. Feeble-mindedness is not a diagnosis, it is only a large general classification within which anything is rather more than likely to happen. Some things happen again and again, but the more one knows the less one is likely to predicate largely in this as in any other field. The only point we are certain of is that mental defectives are limited personalities

and part of the gloom of case workers has come because they have insisted on applying the same standards to feeble-minded persons as to others better equipped. No therapy, medical or social, will make the feeble-minded normal and we should gear our expectation to a more limited performance. No wonder the atmosphere of gloom prevails so long as workers expect the impossible! With careful training and a good home many defectives will adjust satisfactorily to industry and home-life. They may support themselves; they may even make excellent wages; they need not get into special difficulties, but they can never be turned loose as a sort of finished product on their own, any more than a child can be turned loose. Case workers are learning to keep their heads and their tempers, to distinguish the socially improvable type from the kind that needs must have custodial care and are patiently helping to organize resources for the protection of the community type defective.

There is no panacea for the feeble-minded. These are the children of whom all good citizens are voluntary or involuntary guardians. They will become what we let them become. And, by ignorance and indifference, by political manoeuvering inadequate appropriations, by shilly-shallying of one sort or another, by short-sightedness and down-right stupidity, we are letting whole generations of these children, year after year, be sacrificed to social conditions as unnecessary as they are iniquitous.

The social worker is facing to-day the problem as it is, not belittling its difficulty, but finding strength and courage in analysis and perspective. Mental defect is not all black—it is not all anything. Just as under the spectroscope colours invisible to the naked eye emerge, so discriminating methods applied to the feeble-minded show the adjustments that are possible to science and case work.

DOMINION DEPARTMENT OF HEALTH, OTTAWA.

VENEREAL DISEASE REPORT FOR 1921-1922.

	—1921—		—1922—	
	New cases admitted to clinics and institutions.	Reported by physicians	New cases admitted to clinics & institutions.	Reported by physicians.
January	1,095	1,369	1,302	1,267
February	974	1,204	955	1,068
March	713	1,349	1,021	1,493
April	683	1,221	869	1,421
May	683	1,520	997	1,481
June	914	1,129	1,032	1,141
July	799	1,041	1,005	1,186
August	814	1,184	941	1,679
September	724	1,241	959	1,237
October	839	1,315	1,257	1,573
November	975	1,293	913	1,489
December	1,054	1,323	1,001	1,185
Totals	10,267	15,189	12,252	16,220

Total new cases for 1921, 25,456. Total new cases for 1922, 28,472.

NEW CASES ADMITTED TO CLINICS FOR THE YEARS 1921-1922.

	—1921—				—1922—			
	Syphilis.	Gonorrhoea.	Chancroid.	Tl.	Syphilis.	Gonorrhoea.	Chancroid.	Tl.
January	513	564	18	1,095	535	737	30	1,302
February	500	467	7	974	447	485	23	955
March	333	367	13	713	450	531	40	1,021
April	318	353	12	683	406	450	13	869
May	357	315	11	683	447	523	27	997
June	492	402	20	914	358	648	26	1,032
July	366	408	25	799	605	369	31	1,005
August	398	388	28	814	342	574	25	941
September	381	327	16	724	390	539	30	959
October	398	420	21	839	465	757	36	1,257
November	446	483	46	975	328	576	9	913
December	451	576	27	1,054	398	491	112	1,001
Total	4,953	5,070	244	10,267	5,171	6,680	401	12,252

TOTALS FOR THE YEAR 1922.

	No. of patients under treatment.	No. of treatments.	No. of Wasser-manns.	No. of injections of Arsphenamine.	No. of labor. examinations.
January	10,962	21,577	2,448	4,164	7,684
February	10,324	20,595	1,707	3,164	5,916
March	11,737	28,009	1,826	3,684	6,345
April	10,632	14,704	1,899	3,380	6,200
May	12,180	23,115	2,151	3,529	6,690
June	11,726	20,711	1,905	3,196	6,293
July	9,828	20,243	1,488	3,442	5,937
August	12,064	20,862	1,768	3,641	6,480
September	10,650	20,181	1,878	3,087	6,233
October	11,575	19,702	2,036	3,666	6,942
November	10,531	19,598	1,892	3,499	6,572
December	11,059	24,136	1,626	3,499	6,287
Total		280,433	22,624	41,951	77,579

News Notes

Dr. H. F. Vaughan, Commissioner of Health, Detroit, will speak on "Some Recent Aspects of Public Health Administration," at the Ontario Health Officers' Annual Meeting in the Physics Building, University of Toronto, May 21st to 23rd.

An interesting feature of the Ontario Health Officers' Convention on May 21st, 22nd and 23rd will be an address on "Insulin in the treatment of Diabetes," by Dr. F. C. Banting, of the University of Toronto.

The Hon. Mr. Justice Riddell will be the speaker at the luncheon of the Ontario Health Officers' Association at Hart House on Monday, May 21st, at 1 p.m.

The latest reports about the typhoid epidemic in Cochrane give the number of cases to date as 804, and the number of deaths as 50. There were 518 cases reported in March with 11 deaths.

Psychiatric social workers throughout the country have organized as a section of the American Association of Hospital Social Workers, to be called the Section on Psychiatric Social Work. This action, discussed and planned at the time of the National Conference of Social Work in Milwaukee, 1921, was put into effect during the 1922 Conference at Providence, when the American Association of Hospital Social Workers at its annual meeting formally adopted the Section. The active membership of this Association includes any one who has been employed for a year in social work in a hospital or dispensary. As many psychiatric social workers are employed in clinics not connected with hospitals and dispensaries, or in mental hygiene societies, provision is made for admitting associate members of the Association to active membership in the Section, when they meet the Section's membership requirements.

The requirements for active membership in the Section are based upon training and experience; and there are no associate members. Graduates of recognized training courses in phychiatric social work of not less than nine months' duration, are eligible after they have held a position in psychiatric social work for one

year; graduates of schools of social work who have not taken a special course are eligible after two years in a position in psychiatric social work; and persons who have not taken formal training but meet certain educational requirements are eligible after four years of successful accomplishment in psychiatric social work.

The objects of the Section are stated as (1) to promote association among psychiatric social workers, and (2) to maintain standards in psychiatric social work. Various local groups that meet more or less informally are co-operating with the Section. No local branches of the Section, however, are being formed at present, as the emphasis is now upon uniting all eligible psychiatric social workers of the United States and Canada in one organization. News of the progress of the new Section will appear in the Association's Bulletin; and meetings will be held when the Association holds its annual meeting during the Conference of Social Work in Washington, May 16-23.

The term "psychiatric social worker" was first used about 1918 to indicate a social worker working in association with a psychiatrist in the study and care of persons who present psychiatric problems. Such problems may appear as mental disease, delinquency, anti-social behaviour, or bad habits, and in so far as all social workers meet these problems, some knowledge of psychiatry is essential to all social case work. But there arose a need for a specially trained social worker, with a dominant interest in mental processes and mental hygiene, to work with the psychiatrist. In 1918, there were perhaps fifty social workers in the United States engaged in this field, who had received their preparation in various ways. During this year two special courses of training for psychiatric social work were started by the Smith College School of Social Work and the New York School of Social Work. Previously the only systematic training offered for this special field had been an apprentice course given by the social service of the Boston Psychophatic Hospital. Since 1918, a number of courses have been offered in various places, and others are under discussion. The demand for social workers in this field has been so great that many who were trained for other branches of social work have been drawn into it, sometimes with a short preliminary course of study or a short period of apprentice training, and sometimes without even this slight preparation. In many places, particularly in connection with work for the ex-service men, it has been necessary to use the services of persons who have some knowledge of mental disorders, but have had no training in social work. Because of this variety

in personnel, there is considerable variation in the standards for psychiatric social work held by different persons, but in the main the standards set by the two schools of social work that first introduced this special training are being upheld and advanced. These schools require for admission previous education of college rank and give a course of approximately two years, including practice in social case work for at least nine months. A curriculum for a course in psychiatric social work is recommended in the report of the Committee on Training for Hospital Social Work of the American Hospital Association, which worked during the year 1921-1922 under the chairmanship of Michael M. Davis, Jr., upon an investigation of the subject of training for medical work and psychiatric social work.

The officers of the new Section on Psychiatric Social Work of the American Association of Hospital Social Workers are as follows:

Mary C. Jarrett, President, Boston.

Mary R. Ferguson, Vice-President, Philadelphia.

Maida H. Solomon, Secretary-Treasurer, Boston.

Other members of the Executive Committee—Marie L. Donohoe, Boston; Cornelia Hopkins, Chicago; Suzie L. Lyons, Boston; Martha Strong, New York.

Inquiries of all kinds may be addressed to the Secretary, Mrs. H. C. Solomon, 74 Fenwood Road, Boston, Mass.

Revised Programme of the Ontario Health Officers' Association, May 21, 22 and 23, 1923

Physics Building, University of Toronto, Toronto

MONDAY.

First Session—

10 a.m.—Registration of delegates.

10.30—Moving Picture.

11 a.m.—Remarks by the Chief Officer of Health.

11.30—Dr. P. J. Moloney, District Officer of Health, "Co-operation in Health Work among Public Officials."

12 noon—Address by Dr. E. R. Secord, Brantford, President, Ontario Medical Association.

Luncheon—At Hart House at 1 p.m. (The members will be the guests of the Provincial Board of Health). Address by Hon. Mr. Justice Riddell, Supreme Court.

Second Session—

2 p.m.—Presidential Address. Dr. D. V. Currey, M.O.H., St. Catharines.

2.30—Mr. Wills MacLachlan, Toronto. "Resuscitation." Illustration of Schaefer Method.

3.00—Dr. H. F. Vaughan, Commissioner of Health, Detroit, Mich. "Some recent aspects of Public Health Administration."

TUESDAY.

Third Session—

9 a.m.—Moving Picture.

9.30—Dr. James Roberts, M.O.H., Hamilton. "The Schick Test and Active Immunization against Diphtheria."

10.00—Symposium on Tuberculosis.

Dr. Harold Parsons, of Toronto, will deal with the subject under the heading of "Tuberculous Contacts." The Pathology of Mediastinal Tuberculosis" will be discussed by Dr. I. H. Erb, pathologist to the Hospital for Sick Children, Toronto. "Tuberculous infection in infancy, and its effects," will be discussed by Dr. A. Davis, of Toronto. Interesting slides and material will be shown. A discussion will follow.

Fourth Session—

2 p.m.—Symposium on Cancer.

A paper will be read by Dr. Adam Wright, Chairman of the Provincial Board of Health, Ontario. After the reading of Dr. Wright's paper there will be a full discussion, with the following gentlemen taking up the subject from various angles:

Ulcers of the stomach and duodenum and their relation to cancer:

Surgical Aspect—Professor Clarence Starr, University of Toronto.

Medical aspect—Dr. Wm. Goldie, Toronto.

Gynaecological Aspect—Dr. F. A. Cleland, Toronto.

Cancer Statistics—Dr. Grant Fleming, Toronto.

Chronic Constipation—Dr. W. J. Dobbie, Weston, Ont.

"The Cancer Situation"—Dr. H. W. Hill, Western University, London, Ont.

X-Ray—Dr. L. R. Hess, Hamilton, Ont.

3.30—Dr. A. J. Slack, Western University, London, Ontario. "Milk and its relation to disease."

WEDNESDAY.

Fifth Session—

9 a.m.—Moving Picture.

9.30—Dr. H. S. Thompson, Dental Research Department, University of Toronto. "Dentistry and Health."

10 a.m.—Dr. J. G. Cunningham, Director, Division of Industrial Hygiene, Provincial Board of Health. "The Part-time Physician in Industry."

11 a.m.—Dr. W. L. Hutton, M.O.H., Brantford. "Smallpox."

11.30—Mr. F. A. Dallyn, C.E., Director, Division of Sanitary Engineering, Provincial Board of Health. "The Significance of certain vital statistics" (with slides).

Sixth Session—

2 p.m.—Mr. S. J. Manchester, Director of Vital Statistics; Registrar-General's Department. "Vital Statistics and causes of death."

2.30—Dr. F. G. Banting, University of Toronto. "Insulin in the treatment of Diabetes."

D. V. CURREY, *President.*
T. A. LOMER, *Vice-President.*
J. J. MIDDLETON, *Secretary.*

ONTARIO

The Provincial Board of Health of Ontario

COMMUNICABLE DISEASES REPORTED FOR THE PROVINCE FOR THE MONTH OF APRIL, 1923.

Comparative Table.

Diseases.	1923. Cases.	1923. Deaths.	1922. Cases.	1922. Deaths.
Small-pox	29	0	79	0
Scarlet Fever	329	11	249	11
Diphtheria	170	21	308	27
Measles	1,148	7	1,266	8
Whooping Cough	286	18	69	8
*Typhoid	338	54	13	7
Tuberculosis	176	118	207	135
Infantile Paralysis	4	3	1	1
Cerebro Spinal Meningitis	13	11	9	8
Influenza	.....	84	.....	.....
Influenzal Pneumonia	.....	22	.....	30
Pneumonia	.....	332	.....	375
Encephalitis Lethargica	.....	7	.....	.....
Syphilis	122	.....	194	0
Gonorrhoea	125	.....	165	.....
Chancroid	3	.....	6	.....

*Outbreak at Cochrane 286 case and 39 deaths.

Notes on Current Literature

From the Health Information Service, Canadian Red Cross.

LIBRARY BULLETIN, NO. 26. March, 1923.

1. *Health Education.*

Dr. J. F. Williams of Columbia University, calls the attention of health workers to some of the most frequent errors in health education. "The Public Health Nurse," February, 1923, page 56.

2. *Industrial Hygiene.*

The Bulletin of the Department of Health of New York City for December, 1922, contains an address by the Deputy Commissioner of Health, on facts that should be known by the public regarding industrial hygiene.

3. *Dental Hygiene.*

In 1921 the British Medical Research Council appointed a committee to investigate the causes of dental disease. This committee has recently issued a report on the structure of teeth in relation to dental disease. Other reports on different phases of the subject will be issued from time to time.

4. *Social Hygiene.*

The Canadian Social Hygiene Council publishes a series of introductory studies in social hygiene. These studies are reprints of a series of lectures arranged by the Social Service Department of the University of Toronto. Copies of this pamphlet may be obtained from 207 York Building, Toronto.

5. *Pre-School Children.*

A report on the physical status of pre-school children has recently been issued by the United States Children's Bureau. (Bureau publication, No. 111).

6. *Prenatal Hygiene.*

A lecture on prenatal hygiene and problems of maternity and child welfare, delivered by Dr. W. M. Feldman before the Royal Institute of Public Health. "The Journal of State Medicine," January, 1923, page 3.

7. *School Lunches.*

"A Penny Lunch" is the title of a useful booklet giving directions for starting and conducting school lunches for children.

8. *Nutrition of School Children.*

The report of the U.S. P. H. S. for January 12th contains the result of an investigation of the height and weight of school children as an index of nutrition. The results of this investigation will be of interest to those who use height and weight tables in in school health work.

9. *Food for the Family.*

A revision of the booklet issued by the New Year Association for Improving the Condition of the Poor.

10. *Public Health Nursing.*

Nursing organization as developed in Toronto, by Dr. C. J. Hastings. "The Nation's Health," February 15th, 1923, page 6.

11. *American Red Cross Publications.*

The American Red Cross has recently issued the following new leaflets:—

(a) Manual of Organized Volunteer Service—A.R.C. 415
(b) Red Cross Instruction in Home Hygiene and Care of the Sick for Girl Scouts—A.R.C. 719

BOOKS ADDED TO THE LIBRARY.

12. *"Food, Health and Growth,"* by L. Emmett Holt, M.D., LL.D. Cloth, $1.65. Pp. 273. New York: The Macmillan Company.
13. *"The Healthy Child from Two to Seven,"* by F. H. MacCarthy, M.D. Cloth, $1.75. Pp. 235. New York: The Macmillan Co., 1922. A handbook for parents, nurses and workers for child welfare.
14. *"Making the Most of Life,"* by M. V. O'Shea and J. H. Kellog. Cloth, $1.05. Pp. 298. New York: The Macmillan Co.
15. *"Health and Cleanliness,"* by M. V. O'Shea and J. H. Kellog. Cloth, 95c. Pp. 297. New York: The Macmillan Co., 1921.
16. *"The Laws of Sex,"* by Edith H. Hooker. Cloth. Pp. 373. Boston: Richard G. Badger, 1921.

Editorial

HEALTH MACHINERY.

In spite of all our modern health conserving machinery we scarcely realize as yet either that health is a paramount consideration or the nature of the work which must be undertaken before we make possible the general elimination of disease. We have on the whole become so accustomed to the enormous waste envolved in a vast organization for the treatment of unnecessary ailments and to the even more serious social expenditure envolved in the existence of disease itself that our endeavours to conserve health have been expressed largely by the working out of schemes for dealing with disease problems whose solution is comparatively easy.

The elimination of typhoid fever from a community is not difficult. We understand the origin of the disease and its method of conveyance. Epidemics or occasional cases can be readily investigated and explained and preventive methods adopted generally in such a way that the disease can be done away with. This is demonstrated by the fact that such occurrences as the Cochrane epidemic for instance are very unusual in this day and age. This statement applies to all maladies in which the origin and method of transmission are fully understood. Malaria and yellow fever can be vanquished by an effective frontal attack on the mosquito. Plague, cholera, small pox and similar diseases are in the same category. Similarly the effective control of cancer depends on an understanding of what cancer is.

When one comes to such diseases as the venereal group, tuberculosis, and industrial diseases, we have an entirely different problem. Valuable as the establishment of venereal disease clinics and tuberculosis sanatoria may seem in dealing with such questions, in reality they constitute only first steps. These diseases exist because of neglect in fields far removed from those we generally consider as having to do with disease. Hours of work, shop conditions, housing conditions, moral teaching, the age of marriage, wages—these are the factors which must be considered in dealing with diseases which exist because of the faulty organization of society itself.

This being true the scope of the health officer's work widens. His trainng must be better and more comprehensive. His pay must be greater and his position more secure. The whole time health officer must be the rule rather than the exception—the Minister of Health—devoting his entire time to the organization of health activities should always be at the head. With such machinery we could look forward with confidence to a state of affairs far removed from that which exists at present. Then we may hope for not more hospitals but fewer, not more citizens trained in the art of curing disease but many trained and eager to prevent—hence longer, healthier and happier lives for the average citizens.

THE DRINKING CUP.

It is perhaps not extraordinary that it takes a good jolt to arouse most of us from complacency. A fine garden variety virulent cold in the head, for instance, might possibly arouse a live health officer to a most vituperative attack on the common drinking cup. He might suddenly remember that axiomatic statement of a learned and scientific preceptor that "a cup, glass, pitcher, spoon, fork or such article if used in common by two or more persons may transfer tuberculosis, syphilis or other infectious disease," to say nothing of the damnable thought beclouding, efficiency destroying, devilish affliction from which he is suffering himself. That the said affliction is so transmitted more than any other disease would obviously be very much to the point.

In the old days, before Pasteur came on the scene, a few germs between friends did not amount to much, and even the adroit custom of drinking near the handle of a cup or left handed was considered a foolish and superstitious concession akin to refusing to light three cigarettes from the same match. But times have changed and the advent of over a hundred thousand soda fountains on this continent—all potential disease spreaders in view of our modern knowledge makes one wonder how much supervision these marbled purveyors of liquid refreshment should be subjected to, and to what extent we should insist on the use of the paper cup—undoubtedly the cleanest and most sanitary of all receptacles—for such use. Here and elsewhere in places where people are wont to drink from cups or glasses used more or less in common, we have a problem.

Interesting information was derived from a recent investigation as to contaminated soda glasses undertaken by a State Board of

Health. It was found that generally glasses were used—paper cups only infrequently. Cleansing of the glasses after use was of varying types, ranging from mere rinsing in cold water to sterilizing. Cultures were taken from the rims of a series of receptacles of different types.

The main facts brought out by this investigation were: Forty per cent. of the glasses examined were actually infected with disease germs. An additional twenty per cent. were infected with putrefactive organisms. It was rarely safe to drink from the remaining forty per cent., and less than seven per cent. of these were sterile. One paper cup examined was found to have on its rim only a small number of harmless germs, although it had been standing on a counter for an in definite period.

Provisional Programme of the Canadian Public Health Congress

June 12th, 13th, 14th, 1923

EDMONTON, ALBERTA.

ALL SESSIONS TO BE HELD IN THE UNIVERSITY BUILDINGS.

TUESDAY, JUNE 12TH.

Registration—9-10.30.

A.M.—10.30 to 12—Sectional Meetings.

P.M.—2 to 4—Joint meeting of all Associations making up Congress.

Papers on the following phases of Public Health will be presented:—

Tuberculosis,
Venereal Disease,
Child Welfare.
Public Health Administration,
Laboratory and Research.

EVENING—

Public Meeting, University Buildings. Chairman, Lieut.-Gov. the Hon. R. G. Brett.

Addresses of Welcome—Mayor Duggan.

President's Address.

Addresses of popular nature dealing with Tuberculosis and its Prevention, and Social Hygiene.

WEDNESDAY, JUNE 13TH.

Morning—Sectional Meetings.

Clinic T. B., University Hospital.
Clinic Child Welfare, Civic Block.
Clinic Venereal Disease, Tegler Building.

Afternoon—Joint meeting of all Associations in attendance at Conference, under the Chairmanship of Sheriff Cook, of Regina. Papers of interest will be presented for discussion.

Evening—PUBLIC MEETING—University.

Chairman, Hon. R. G. Reid, Minister of Municipal Affairs and Public Health.

Among the speakers will be Hon. Dr. Uhrich, Provincial Secretary and Minister in charge of Bureau of Public Health, Saskatchewan.

THURSDAY, JUNE 14TH.

Morning—9.30, Annual Meeting of the Canadian Social Hygiene Council.

Afternoon—Sectional Meetings.

Evening—Motor Drive.

FRIDAY, JUNE 15TH.

General Meeting of Canadian Public Health Association.

Luncheon meetings are planned, and special gatherings of a social nature which will be provided, promise all those in attendance a profitable and enjoyable time.

HOTEL ACCOMMODATION, ETC.

Accommodation may be secured by any desiring same, at the University Dormitories at reasonable rates, or at the following Hotels. (All European plan—i.e., exclusive of meals.)

Macdonald Hotel—	
Without bath	$3.00 per day
With bath	$4.00 per day
King Edward—	
Without bath	$2.00 per day
With bath	$3.00 per day
Corona—	
Without bath	$1.50 to $2.00 per day
With bath	$2.50 per day
Selkirk—	
Without bath	$1.50-$2.50 per day
With bath	$3.00 per day
Royal George—	
Without bath	$1.00-$2.00 per day
With bath	$3.00 per day

It is suggested that those planning to attend the Congress make the reservations direct with the Hotel at which they desire accommodation.